CLAIMS

What is claimed is:

1.   A method, comprising:

intercepting a message-based interrupt from a device of a computer system;

determining a fake line-based interrupt for the device corresponding to the message-based interrupt, wherein an operating system (OS) of the computer system is not message-based interrupt capable;

issuing the fake line-based interrupt to the OS;

servicing a query from the OS regarding the fake line-based interrupt, the query to determine if the fake line-based interrupt was from the device; and

providing an interrupt vector associated with the message-based interrupt to the OS.

2.   The method of claim 1 wherein the message-based interrupt includes a message-signaled interrupt (MSI).

3.   The method of claim 1 wherein servicing the query comprises:

receiving the query from a device driver associated with the device; and

providing device configuration information to the device driver.

4.   The method of claim 1, further comprising servicing a second query from the OS, wherein the OS believes the fake line-based interrupt is shared by the device and a second device of the computer system.

5.   The method of claim 1, further comprising storing device configuration information associated with the device.

6.   The method of claim 1, further comprising initializing an interrupt mapper, wherein the interrupt mapper maps the message-based interrupt to the fake line-based interrupt.

7.   The method of claim 6, further comprising launching a VMM to manage the interrupt mapper, wherein the OS executes in a VM supported by the VMM.

8.   The method of claim 7 wherein the VMM operates substantially in accordance with an Extensible Firmware Interface (EFI) specification.

9.   The method of claim 7, further comprising launching a second OS in a second VM supported by the VMM, wherein the second OS is not message-based interrupt capable.

10.   The method of claim 9 wherein the interrupt mapper maps a second fake line-based interrupt with a second device available to the second OS.

11.   The method of claim 9 wherein the OS and the second OS share the device, the VMM to issue the fake line-based interrupt to the OS or the second OS based on analysis of the message-based interrupt.

12.   The method of claim 1, further comprising launching a second OS in a second VM supported by the VMM, wherein the second OS is message-based interrupt capable.

13.   The method of claim 12 wherein the second OS receives a second message-based interrupt from the device without the second message-based interrupt being intercepted by the VMM.

14.   An article of manufacture, comprising:

a machine-accessible medium including a plurality of instructions which when executed perform operations comprising:

intercepting a message-signaled interrupt (MSI) from an MSI device of a computer system;

determining a fake line-based interrupt for the MSI device corresponding to the MSI;

tripping an operating system (OS) service routine of a non-MSI OS of the computer system, the OS service routine corresponding to the fake line-based interrupt;

servicing a query from the non-MSI OS regarding the fake line-based interrupt; and

providing an interrupt vector associated with the message-based interrupt to the OS.

15. The article of manufacture of claim 14 wherein servicing the query comprises:

receiving the query from a device driver associated with the device, wherein the query to determine if the fake line-based interrupt was from the device; and

providing device configuration information to the device driver.

16. The article of manufacture of claim 14 wherein execution of the plurality of instructions further perform operations comprising initializing an interrupt mapper, wherein the interrupt mapper to map the message-based interrupt to the fake line-based interrupt.

17. The article of manufacture of claim 16 wherein execution of the plurality of instructions further perform operations comprising launching a VMM to manage the interrupt mapper, wherein the non-MSI capable OS to execute in a VM supported by the VMM.

18. The article of manufacture of claim 14 wherein execution of the plurality of instructions further perform operations comprising servicing a second query from the non-MSI OS, wherein the non-MSI OS believes the fake line-based interrupt is shared by the device and a second device of the computer system.

19. The article of manufacture of claim 14 wherein the plurality of instructions to operate substantially in compliance with an Extensible Firmware Interface (EFI) specification.

20. A computer system, comprising:

a processor; and

at least one flash memory device operatively coupled to the processor, the at least one flash memory device including firmware instructions which when executed by the processor perform operations comprising:

intercepting a message-based interrupt from a device of a computer system;

determining a fake line-based interrupt for the device corresponding to the message-based interrupt, wherein an operating system (OS) of the computer system is not message-based interrupt capable;

issuing the fake line-based interrupt to the OS;

servicing a query from the OS regarding the fake line-based interrupt, the query to determine if the fake line-based interrupt was from the device; and

providing an interrupt vector associated with the message-based interrupt to the OS.

21. The computer system claim 20 wherein servicing the query comprises:

receiving the query from a device driver associated with the device; and

providing device configuration information to the device driver.

22. The computer system of claim 20 wherein execution of the firmware instructions further perform operations comprising initializing an interrupt mapper, wherein the interrupt mapper maps the message-based interrupt to the fake line-based interrupt.

23. The computer system of claim 22 wherein execution of the firmware instructions further perform operations comprising launching a VMM to manage the interrupt mapper, wherein the non-MSI capable OS to execute in a VM supported by the VMM.

24. The computer system of claim 20 wherein execution of the plurality of instructions further perform operations comprising servicing a second query from the non-MSI capable OS, wherein the non-MSI capable OS believes the fake line-based interrupt is shared by the device and a second device of the computer system.

25.   A system, comprising:

a first message-signaled interrupt (MSI) device;

a second MSI device;

a virtual machine (VM) including a non-MSI operating system (OS); and

a virtual machine monitor (VMM) supporting the VM, the VMM including an

interrupt mapper to map a first MSI from the first MSI device and a second MSI from

the second MSI device to a fake line-based interrupt for the non-MSI OS.

26.   The system of claim 25, further comprising a non-MSI device driver

operatively coupled to the non-MSI OS, the non-MSI device driver to query the first

MSI device in response to the fake lined-based interrupt issued by the VMM.

27.   The system of claim 25, further comprising a cache operatively coupled to the

VMM, the cache to store configuration information associated with the first MSI

device.

28.   The system of claim 25 wherein the VMM to operate substantially in

compliance with an Extensible Firmware Interface (EFI) specification.